Libereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: March 20, 2007

Signature:

Docket No.: 27527/40666

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Liu et al.

Application No.: 10/585,459

Confirmation No.: Not Yet Assigned

Filed: July 7, 2006

Art Unit: Not Yet Assigned

For:

M-CSF-Specific Monoclonal Antibody and

Uses Thereof

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

U.S. Patent Publication No. 2005/0245417 is an English-language equivalent to International Patent Publication No. WO-03/059395; Canadian Patent No. 2 388 298 is an English-language equivalent to International Patent Publication No. WO-01/30381; European Patent No. EP-0 547 234 is an English-language equivalent to International Patent Publication No. WO-93/00921.

Applicants have not submitted copies of each cited U.S. patent and U.S. patent application as required by 37 CFR 1.98(a)(2)(i), amended October 2004, as the U.S. Patent and Trademark Office has waived this requirement for all U.S. patent applications. Applicant submits herewith copies of foreign and non-patents in accordance with 37 CFR 1.98(a)(2).

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

For the convenience of the Examiner, the cited references have been grouped generally into the following categories. However, the grouping herein is not a representation that the category indicated is the only subject matter of interest in such references.

(1) Cited by the International Searching Authority in related applications

- A8 U.S. Paten No. 5,766,886
- A10 U.S. Patent No. 6,025,146
- A13 U.S. Application No. 2005/059113
- B3 GB 2 405 873
- B11 WO 96/08565
- B17 WO 2004/045532
- C35 Mancino et al., J. Surgical Res., 100: 18-24 (2001).
- C43 Mouse Anti-Human M-CSF Monoclonal Antibody [116] Datasheet, Catalogue No. MO-C40048A.

C45 - Mouse Anti-Human M-CSF Monoclonal Antibody [692] Datasheet, Catalogue No. MO-C40048B.

- C44 Mouse Anti-Human M-CSF Monoclonal Antibody [21] Datasheet, Catalogue No. MO-C40048D.
 - C40 Monoclonal Anti-Human M-CSF Antibody, Catalogue No. MAB216
 - C61 Studnicka et al., Protein Engineering, 7: 805-814, 1994
 - C63 Suda et al., Oncogene, 11: 2469-2476, 1995.
 - C70 Van der Pluijm et al., J. Bone Mineral Res., 16: 1077-1091, 2001.
 - C90 Yoshida et al., Nature, 345: 442-444 (1990).

(2) Cancer/Metastasis

- C12 Filderman et al., Cancer Res 52: 3661-3666, 1992.
- C80 Wenger et al., Clin. Exp. Metastasis 19: 169-173, 2002.
- C87 Yi et al., Cancer Res. 62: 917-923, 2002.
- C67 Tsutsumi et al., Cancer Lett 169: 77-85, 2001.
- C65 Tsingotjidou et al., Anticancer Res. 21: 971-978, 2001.
- C73 Wakabayashi et al., Oncology 59: 75-80, 2000.
- C9 Culp and Kogerman, Front Biosci. 3:D672-683, 1998.
- C53 Runge et al., Invest Radiol. 32: 212-217.
- C59 Shioda et al., J. Surg. Oncol. 64: 122-126, 1997.
- C34 Ma et al., Invest Ophthalmol Vis Sci. 37: 2293-2301, 1996.

C30 - Kuruppu et al., J Gastroenterol Hepatol. 11: 26-32, 1996.

A5 - U.S. Patent No. 5,491,065

(3) Osteoclasts/Bone

- C17 Göthling et al., Clin Orthop Relat R 120: 201-228, 1976.
- C26 Kahn et al., Nature 258: 325-327, 1975.
- C62 Suda et al., Modulation of Osteoclast Differentiation. Endocr. Rev. 13: 66-80, 1992.
 - C75 Walker, Science 180: 875, 1973.
 - C76 Walker, Science 190: 785-787, 1975.
 - C3 Athanasou et al., Bone Miner 3: 317-333, 1988.
 - C11 Feldman et al., Endocrinology 107: 1137-1143, 1980.
 - C91 Zheng et al., Histochem J 23: 180-188, 1991.
 - C18 Hagenaars et al., Bone Miner 6: 179-189, 1989.
- C81 Wiktor-Jedrzejczak et al., Proc Natl Acad Sci USA 87: 4828-4832, 1990.
 - C90 Yoshida et al., Nature 345: 442-444, 1990.
 - C62 Suda et al., Endocr. Rev. 13: 66-80, 1992.
 - C31 Lacey et al., Cell 93: 165-176, 1998.
 - C66 Tsuda et al., Biochem Biophys Res Co 234: 137-142, 1997.

- C84 Wong et al., J Biol. Chem 272: 25190-25194, 1997.
- C83 Wong et al., J Exp Med 186: 2075-2080, 1997.
- C85 Yasuda et al., Endocrinology 139: 1329-1337, 1998.
- C86 Yasuda et al., Proc Natl Acad Sci US 95: 3597-3602, 1998.
- C5 Blair et al., J Cell Biol 102: 1164-1172, 1986.
- C72 Väänänen et al., Histochemistry 78: 481-485, 1983.
- C77 Warshafsky et al., Bone 6: 179-185, 1985.
- C10 Davies et al., J Cell Biol 109: 1817-1826, 1989.
- C13 Fixe and Praloran, Cytokine 10: 32-37, 1998.
- C38 Martin et al., Critical Rev. in Eukaryotic Gene Expression 8: 107-123, 1998.
 - B16 WO 99/29345
 - B9 WO 93/00921
 - B5 JP6319584
 - B4 JP 5095794

(4) M-CSF

- C51 Pandit et al., Science 258: 1358-1362, 1992.
- C19 Hamilton, Trends Immunol./Today 18: 31,3, 7, 1997.

- C25 Kacinski, Ann. Med. 27: 79-85, 1995.
- C60 Smith et al., Clin. Cancer Res. 1: 313-325, 1995.
- C57 Scholl et al., J. Natl. Cancer Inst. 86: 120-126, 1994.
- C33 Lin et al., J. Exp. Med. 193: 727-739, 2001.
- C35 Mancino et al., J. Surg. Res. 100: 18-24, 2001.
- C6 Cenci et al., J Clin. Invest. 1055: 1279-1287, 2000.
- C58 Shadle, P.J., et al., Experimental Hematology 17 (2): 154-9, 1989.
- B18 WO 03/059395
- A12 US 20020141994

(5) Antibodies

- A1 U.S. Patent No. 4,816,567
- A9 U.S. Patent No. 5,939,598
- A6 U.S. Patent No. 5,530,101
- A7 U.S. Patent No. 5,585,089
- C23 Jones et al., Nature 321:522-525 (1986).
- C41 Morrison et al., Proc. Natl. Acad. Sci., U.S.A., 81: 6851-6855 (1984).
- C42 Morrison and Oi, Adv. Immunol., 44:65-92 (1988).
- C71 Verhoeyen et al., Science 239:1534-1536 (1988).

- C49 Padlan, Molec. Immun. 28: 489-498 (1991).
- C50 Padlan, Molec. Immunol. 31(3): 169-217 (1994).
- C29 Kettleborough, C.A. et al., Protein Eng. 4(7):773-783 (1991).
- C7 Chothia et al., J. Mol. Biol. 196:901-917 (1987).
- C24 Kabat et al., U.S. Dept. of Health and Human Services NIH Publication No. 91 3242 (1991).
 - B15 WO 98/24893
 - B7 WO 91/00741
 - B12 WO 96/30498
 - B10 WO 94/02602
 - B13 WO 96/33735
 - B14 WO 96/34096

(6) MCSF and Antibodies

- A11 U.S. Application No. 2002/010126A1
- A12 U.S. Application No. 2002/141994
- B17 WO 01/30381
- B6 WO 90/09400
- B8 WO 91/08774

C48 - Ohtsuki et al., Experimental Hematology 24(2), 101-7 (1996).

C36 - Marsh, C.B., et al., Journal of Immunology 162 (10): 6217-25, 1999.

(7) Osteoclasts/Bone and M-CSF

- B16 WO 99/29345
- C39 Matsuzaki, K., et al., Endocrinology, 140 (2): 925-32, 1999.
- C22 Itoh, K., et al., Journal of Bone and Mineral Research, 15 (9): 1766-75, 2000.
- C78 Weir, E.C., et al., Journal of Bone and Mineral Research, 11 (10): 1474-81, 1996.
- C79 Weir, E.C., et al., Journal of Bone and Mineral Research, 8 (12): 1507-18, 1993.
 - C32 Lee, M.Y., et al., Blood, 74 (1): 115-22, 1989.
- C4 Biskobing, D.M., et al., Journal of Bone and Mineral Research, 10 (7): 1025-32, 1995.
 - C64 Tanaka, S., et al., J Clin Invest, 91 (1): 257-63, 1993.
 - C15 Fujikawa, Y., Bone, 28 (3): 261-7, 2001.
- C47 Neale, S.D., et al., Journal of Orthopaedic Research, 17 (5): 686-94, 1999.
- C6 Cenci, S., et al., J Clin Invest. "M-CSF Neutralization and egr-1 Deficiency Prevent Ovariectomy Induced Bone Loss", 105 (9): 1279-87 (May 2000).

C47 - Neale S.D., et al., J Orthop Res., 17 (5): 686-94, 1999.

C35 - Mancino A.T., et al., J Surg Res., 100 (1): 18-24, 2001.

(8) Cancer/Metastasis and M-CSF

C27 - Kawakami, Y., et al., European Journal of Cancer, 36 (15): 1991-7, 2000.

C20 - Haran Ghera, N., J.Mol.Med., 75 (7): B213, 1997.

C82 - Wing, E.J., et al., J.Clin. Invest 69 (2): 270-6 (Feb. 1982).

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 13-2855, under Order No. 27527/40666.

Dated: March 20, 2007

Respectfully submitted

Erie M. Brusca

Reg. No. 52,664

MARSHALL, GERSTEIN & BORUN LLP

233 S. Wacker Drive, Suite 6300

Sears Tower

Chicago, Illinois 60606-6357

(312) 474-6300

Agent for Applicants

PTO/SB/08A/B (09-06)
Approved for use through 03/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Sub	stitute for form 1449/PT	0		Complete if Known			
				Application Number	10/585,459		
11	IFORMATIC	DN DI	SCLOSURE	Filing Date	July 7, 2006		
S	TATEMENT	BY	APPLICANT	First Named Inventor	Liu et al.		
				Art Unit			
	(Use as many	sheets as	necessary)	Examiner Name			
Sheet	1	of	6	Attorney Docket Number	27527/40666		

			U.S. PA	TENT DOCUMENTS	
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
Initials*	No.1	Number-Kind Code ² (if known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
	A1	US-4,816,567	03-28-1989	Cabilly et al.	
	A2	US-4,837,028	06-06-1989	Allen	
	A3	US-5,019,369	05-28-1991	Presant et al.	
	A4	US-5,283,173	02-01-1994	Fields et al.	
	A5	US-5,491,065	02-13-1996	Halenbeck et al.	
	A6	US-5,530,101	06-25-1996	Queen et al.	
	A7	US-5,585,089	12-17-1996	Queen et al.	
	A8	US-5,766,886	06-16-1998	Studnicka et al.	
	A9	US-5,939,598	08-17-1999	Kucherlapati et al.	
	A10	US-6,025,146	02-15-2000	Pandit et al.	
	A11	US-2002/0010126-A1	01-24-2002	Hamilton et al.	
	A12	US-2002/0141994-A1	10-03-2002	Devalaraja et al.	
	A13	US-2005/0059113-A1	03-17-2005	Bedian et al.	
	A14	US-2005/0245471-A1	11-03-2005	Balloul et al.	

		FORE	GN PATENT	DOCUMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	B1	CA-2 388 298-A1	05-03-2001	Aharinejad Seyedhossein		
	B2	EP-0 547 234-A1	06-23-1993	The Green Cross Corporation		
	B3	GB-2 405 873	03-16-2005	Warner Lambert Company		
	B4	JP-5095794	04-20-1993	Otsuka Pharamceuticals Company, Limited		Abstract Only
	B5	JP-6319584	11-22-1994	Morinaga Milk Industry Company, Limited		Abstract Only
	B6	WO-90/09400	08-23-1990	Cetus Corporation		
	B7	WO-91/00741	01-24-1991	Natural Environment Research Council Oxford Virology PLC Roy		-
	B8	WO-91/08774	06-27-1991	Cetus Corporation		
	B9	WO-93/00921	01-21-1993	Green Cross Corporation		
	B10	WO-94/02602	02-03-1994	Cell Genesys, Inc.		
	B11	WO-96/08565	03-21-1996	Cancer Research Fund of Contra Costa		
	B12	WO-96/30498	10-03-1996	Xenotech, Inc.		
	B13	WO-96/33735	10-31-1996	Cell Genesys, Inc.		
	B14	WO-96/34096	10-31-1996	Cell Genesys, Inc.		
	B15	WO-98/24893	06-11-1998	Abgenix, Inc.		
	B16	WO-99/29345	06-17-1999	Jolla Institute for Experimental Medicine		
	B17	WO-01/30381	05-03-2001	Hofbauer Reinhold		
	B18	WO-03/059395	07-24-2003	Transgene		

Examiner	Date	
Signature	Considered	

MAR 2 3 2007

PTO/SB/08A/B (09-06)
Approved for use through 03/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Sut	ostitute for form 1449/PTO			·	Complete if Known
0		Application Number	10/585,459		
11	NFORMATION	I DI	SCLOSURE	Filing Date	July 7, 2006
l s	TATEMENT E	3Y <i>A</i>	APPLICANT	First Named Inventor	Liu et al.
				Art Unit	
	(Use as many sh	eets as	necessary)	Examiner Name	
Sheet	2	of	6	Attorney Docket Number	27527/40666

B19 WO-04/45532	06-03-2004	Chiron Corporation	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. \(^1\) Applicant's unique citation designation number (optional). \(^2\) See Kinds Codes of USPTO Patent Documents at \(\frac{\text{www.uspto.gov}}{\text{unique of MPEP 901.04.}}\) or MPEP 901.04. \(^3\) Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \(^4\) For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \(^5\)Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. \(^6\)Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
_	C1	Arguello et al., "A Murine Model of Experimental Metastasis to Bone and Bone Marrow," Cancer Res., 48: 6876-6881, (1988).	
	C2	Ash et al., "Osteoclasts Derived from Haematopoietic Stem Cells," <i>Nature</i> , 283: 669-670, (1980).	
	C3	Athanasou et al., "Immunocytochemical Analysis of the Human Osteoclast: Phenotypic Relationship to Other Marrow-derived Cells," <i>Bone Miner</i> , 3: 317-333, (1988).	
	C4	Biskobing et al., "Characterization of MCSF-induced Proliferation and Subsequent Osteoclast Formation in Murine Marrow Culture," <i>J. Bone Min. Res.</i> , 10(7):1025-1032 (1995).	
	C5	Blair et al., "Isolated Osteoclasts Resorb the Organic and Inorganic Components of Bone," <i>J. Cell Biol.</i> , 102: 1164-1172, (1986).	
	C6	Cenci et al., "M-CSF Neutralization and Egr-1 Deficiency Prevent Ovariectomy-induced Bone Loss," <i>J. Clin. Invest.</i> , 1055: 1279-1287 (2000).	
	C7	Chothia et al., "Canonical Structures for the Hypervariable Regions of Immunoglobulins," <i>J. Mol. Biol.</i> , 196:901-917 (1987).	
:	C8	Clohisy et al., "Osteoclasts are Required for Bone Tumors to Grow and Destroy Bone," <i>Orthop Res.</i> , 16: 660-666 (1998).	
	C9	Culp et al., "Plasticity of CD44s Expression During Progression and Metastasis of Fibrosarcoma in an Animal Model System," <i>Front Biosci.</i> , 3:672-683 (1998).	
	C10	Davies et al., "The Osteoclast Functional Antigen, Implicated in the Regulation of Bone Resorption, is Biochemically Related to the Vitronectin Receptor," <i>J. Cell. Biol.</i> , 109:1817-1826 (1989).	
	C11	Feldman et al., "Effects of Parathyroid Hormone and Calcitonin on Osteoclast Formation in Vitro," Endocrinology, 107:1137-1143 (1980).	
	C12	Filderman et al., "Macrophage Colony-stimulating Factor (CSF-1) Enhances Invasiveness in CSF-1 Receptor-positive Carcinoma Cells Lines," <i>Cancer Res.</i> , 52:3661-3666 (1992).	
	C13	Fixe et al., "M-CSF: Haematopoietic Growth Factor or Inflammatory Cytokine?" Cytokine, 10:32-370 (1998).	
	C14	Flanagan et al., "Dichloromethylenebisphosphonate (C1 ₂ MBP) Inhibits Bone Resorption Through Injury to Osteoclasts that Resorb C1 ₂ MBP-Coated Bone," <i>Bone and Mineral</i> , 6:33-43 (1989).	
	C15	Fujikawa et al., "The Effect of Macrophage-colony Stimulating Factor and Other Humoral Factors (Interleukin-1, -3, -6, and -11, Tumor Necrosis Factor-α and Granulocyte Macrophage-colony Stimulating Factor) on Human Osteoclast Formation from Circulating Cells," <i>Bone</i> , 28(3):261-267 (2001).	
_	C16	Galasko, "Mechanisms to Lytic and Blastic Metastatic Disease of Bone," <i>Clin. Orthop.</i> , 169:20-277 (1982).	

Examiner	 Date	
Signature	 Considered	

PTO/SB/08A/B (09-06)
Approved for use through 03/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE espect to a collection of information unless it contains a valid OMB control number.

Synder the . . . / nder the Paperwork Reduction Act of 1995, no persons are required to

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 3 of

to respond to a collection of inf	ormation unless it contains a valid OMB control number
	Complete if Known
Application Number	10/585,459
Filing Date	July 7, 2006
First Named Inventor	Liu et al.
Art Unit	
Examiner Name	
Attorney Docket Number	27527/40666

C17	Göthling et al., "Basic Science and Pathology," Clin. Orthop. Relat. R, 120:201-228 (1976).	
C18	Hagenaars et al., "Osteoclast Formation from Cloned Pluripotent Hemopoietic Stem Cells," Bone Miner, 6:179-189 (1989).	
C19	Hamilton, "CSF-1 Signal Transduction: What is of Funcational Significance?" <i>Trends Immunol. Today</i> , 18: 313-317 (1997).	
C20	Haran-Ghera, "Biology and Clinical Use of Hemopoietic Growth Factors," J. Mol. Med., 75(7):B213 (1997).	
C21	Ingall, "A Model for the Study of Experimental Bone Metastases," <i>Proc. Soc. Exp. Biol. Med.</i> , 117:819-822 (1964).	
C22	Itoh et al., "Importance of Membrane- or Matrix-associated Forms of M-CSF and RANKL/ODF in Osteoclastogenesis Supported by SaOS-4/3 Cells Expressing Recombinant PTH/PTHrP Receptors," J. Bone Min. Res., 15(9):1766-1775 (2000).	
C23	Jones et al., "Replacing the Complementarity-determining Regions in a Human Antibody with Those from a Mouse," <i>Nature</i> , 321:522-525 (1986).	
C24	Kabat et al., U.S. Department of Health and Human Services NIH Publication No. 91 3242 (1991).	
C25	Kacinski, "CSF-1 and its Receptor in Ovarian, Endometrial and Breast Cancer," Ann. Med., 27:79-85 (1995).	
C26	Kahn et al., "Investigation of Cell Lineage in Bone Using a Chimaera of Chick and Quail Embryonic Tissue," <i>Nature</i> , 258:325-327 (1975).	
C27	Kawakami et al., "Macrophage-colony Stimulating Factor Inhibits the Growth of Human Ovarian Cancer Cells in Vitro," Eur. J. Cancer, 36(15):1991-1997 (2000).	
C28	Kerby et al., "Derivation of Osteoclasts from Hematopoietic Colony-forming Cells in Culture," <i>J. Bone Miner Res.</i> , 7:353-362 (1992).	
C29	Kettleborough et al., "Humanization of a Mouse Monoclonal Antibody by CDR-grafting: The Importance of Framework Residues on Loop Conformation," <i>Protein Eng.</i> , 4(7):773-783 (1991).	
C30	Kuruppu et al., "Characterization of an Animal Model of Hepatic Metastasis," <i>J. Gastroenterol Hepatol.</i> , 11:26-32 (1996).	
C31	Lacey et al., "Osteoprotegerin Ligand is a Cytokine that Regulates Osteoclast Differentiation and Activation," <i>Cell</i> , 93:165-176 (1998).	
C32	Lee et al., "Mechanisms of Tumor-induced Neutrophilia: Constitutive Production of Colony- stimulating Factors and Their Synergistic Actions," <i>Blood</i> , 74(1):115-122 (1989).	
C33	Lin et al., "Colony-stimulating Factor 1 Promotes Progression of Mammary Tumors to Malignacny," <i>J. Exp. Med.</i> , 193:727-739 (2001).	
C34	Ma et al., "Association Between NM23-H1 Gene Expression and Metastasis of Human Uveal Melanoma in an Animal Model," <i>Invest Ophthalmol Vis. Sci.</i> , 37:2293-2301 (1996).	
C35	Mancino et al., "Breast Cancer Increases Osteoclastogenesis by Secreting M-CSF and Upregulating RANKL in Stromal Cells," <i>J. Surg. Res.</i> , 100:18-24 (2001).	
C36	Marsh et al., "Regulation of Monocyte Survival <i>in Vitro</i> by Deposited IgG: Role of Macrophage Colony-stimulating Factor," <i>J. Immun.</i> , 162(10):6217-6225 (1999).	
C37	Martin et al., "Hormonal Regulation of Osteoclast Function," <i>Trends Endocrinol. Metab.</i> , 9:6-12 (1998).	
C38	Martin et al., "Interleukins in the Control of Osteoclast Differentiation," <i>Critical Rev. in Eukaryotic Gene Expression</i> , 8:107-123 (1998).	
C39	Matsuzaki et al., "Human Osteoclast-like Cells are Formed from Peripheral Blood Mononuclear Cells in a Coculture with SaOS-2 Cells Transfected with the Parathyroid Hormone (PTH)/PTH-related Protein Receptor Gene," <i>Endocrinology</i> , 140(2):925-932 (1999).	

Examiner		Date	
Signature	·	Considered	

PTO/SB/08A/B (09-06)
Approved for use through 03/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Inder the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449/PTO 10/585,459 Application Number **INFORMATION DISCLOSURE** Filing Date July 7, 2006 STATEMENT BY APPLICANT First Named Inventor Liu et al. Art Unit (Use as many sheets as necessary) Examiner Name Sheet 4 Attorney Docket Number 27527/40666

C40	Monoclonal Anti-Human M-CSF Antibody, Catalogue No. MAB216.	
C41	Morrison et al., "Chimeric Human Antibody Molecules: Mouse Antigen-binding Domains with Human Constant Region Domains," <i>Proc. Natl. Acad. Sci., U.S.A.</i> , 81:6851-6855 (1984).	
C42	Morrison et al., "Genetically Engineered Antibody Molecules," Adv. Immunol., 44:65-92 (1988).	
C43	Mouse Anti-Human M-CSF Monoclonal Antibody [116] Datasheet, Catalogue No. MO-C40048A.	
C44	Mouse Anti-Human M-CSF Monoclonal Antibody [21] Datasheet, Catalogue No. MO-C40048D.	
C45	Mouse Anti-Human M-CSF Monoclonal Antibody [692] Datasheet, Catalogue No. MO-C40048B.	
C46	Mundy, "Bone Resorbing Cells," Primer on the metabolic bone diseases and disorders of mineral metabolism, pages 18-22 (1990).	
C47	Neale et al., "Macrophage Colony-stimulating Factor and Interleukin-6 Release by Periprosthetic Cells Stimulates Osteoclast Formation and Bone Resorption," <i>J. Ortho. Res.</i> , 17(5):686-694 (1999).	
C48	Ohtsuki et al., "Binding of Macrophage Colony-stimulating Factor to Serum Proteins," Experimental Hematology, 24(2):101-107 (1996).	
C49	Padlan, "A Possible Procedure for Reducing the Immunogenicity of Antibody Variable Domains While Preserving Their Ligand-binding Properties," <i>Molec. Immun.</i> , 28:489-498 (1991).	
C50	Padlan, "Anatomy of the Antibody Molecule," Molec. Immunol., 31(3):169-217 (1994).	
C51	Pandit et al., "Three-dimensional Structure of Dimeric Human Recombinant Macrophage Colony-stimulating Factor," Science, 258:1358-1362 (1992).	
C52	Powles et al., "The Inhibition by Aspirin and Indomethacin of Osteolytic Tumour Deposits and Hypercalcaemia in Rats with Walker Tumour, and its Possible Application to Human Breast Cancer," <i>Br. J. Cancer</i> , 28:316-321 (1973).	
C53	Runge et al., "Detection and Characterization of Enhanced Magnetic Resonance Imaging Using an Animal Model," <i>Invest. Radiol.</i> , 32:212-217 (1997).	
C54	Sasaki et al., "Angiogenesis Inhibitor TNP-470 Inhibits Human Breast Cancer Osteolytic Bone Metastasis in Nude Mice Through the Reduction of Bone Resorption," <i>Cancer Res.</i> , 58:462-467 (1998).	
C55	Sasaki et al., "Bisphosphonate Risedronate Reduces Metastatic Human Breast Cancer Burden in Bone in Nude Mice," <i>Cancer Res.</i> , 55:3551-3557 (1995).	
C56	Scatchard et al., "The Attractions of Proteins for Small Molecules and Ions," <i>Ann. N.Y. Acad. Sci.</i> , 51:660-672 (1949).	
C57	Scholl et al., "Anti-colony-stimulating Factor-1 Antibody Staining in Primary Breast Adenocarinomas Correlates with Marked Inflammatory Cell Infiltrates and Prognosis," <i>J. Natl. Cancer Inst.</i> , 86:120-126 (1994).	
C58	Shadle et al., "Detection of Endogenous Macrophage Colony-stimulating Factor (M-CSF) in Human Blood," <i>Experimental Hematology</i> , 17(2):154-159 (1989).	
C59	Shioda et al., "Experimental Animal Model of Hematogenous Cardiac Metastasis and Neoplastic Cardiac Tamponade," <i>J. Surg. Oncol.</i> , 64:122-126 (1997).	
C60	Smith et al., "The Role of Colony-stimulating Factor 1 and its Receptor in the Etiopathogenesis of Endometrial Adenocarcinoma," <i>Clin. Cancer Res.</i> , 1:313-325 (1995).	
C61	Studnicka et al., "Human-engineered Monoclonial Antibodies Retain Full Specific Binding Activity by Preserving Non-CDR Complementarity-modulating Residues," <i>Protein Engineering</i> , 7(6):805-814 (1994).	
C62	Suda et al., "Modulation of Osteoclast Differentiation," Endocr. Rev., 13:66-80 (1992).	

Examiner	Date	-
Signature	Considered	

PTO/SB/08A/B (09-06)

Substitute for form 1449/PTO Approved for use through 03/31/2007. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE er the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known 10/585,459 Application Number **INFORMATION DISCLOSURE** Filing Date July 7, 2006 STATEMENT BY APPLICANT First Named Inventor Liu et al. Art Unit (Use as many sheets as necessary) Examiner Name Sheet 5 of 6 Attorney Docket Number 27527/40666

C63	Sudo et al., "Functional Hierarchy of C-Kit and C-Fms in Intramarrow Production of CFU-M," Oncogene, 11(12):2469-2476 (1995).	
C64	Tanaka et al., "Macrophage Colony-stimulating Factor is Indispensable for Both Proliferation and Differentiation of Osteoclast Progenitors," J. Clin. Invest., 91(1):257-263 (1993).	
C65	Tsingotjidou et al., "Development of an Animal Model for Prostate Cancer Cell Metastasis to Adult Human Bone," <i>Anticancer Res.</i> , 21:971-978 (2001).	
C66	Tsuda et al., "Isolation of a Novel Cytokine from Human Fibroblasts that Specifically Inhibits Osteoclastogenesis," <i>Biochem. Biophys. Res. Co.</i> , 234:137-142 (1997).	
C67	Tsutsumi et al., "Animal Model of Para-aortic Lymph Node Metastasis," Cancer Lett., 169:77-85 (2001).	
C68	Udagawa et al., "Origin of Osteoclasts: Mature Monocytes and Macrophages are Capable of Differentiating into Osteoclasts Under a Suitable Microenvironment Prepared by Bone Marrowderived Stromal Cells," <i>Proc. Natl. Acad. Sci. USA</i> , 87:7260-7264 (1990).	
C69	Udagawa et al., "The Bone Marrow-derived Stromal Cell Lines MC3T3-G2/PA6 and ST2 Support Osteoclast-like Cell Differentiation in Cocultures with Mouse Stem Spleen Cells," <i>Endocrinology</i> , 125:1805-1813 (1989).	
C70	Van der Pluijm et al., "Monitoring Metastatic Behavior of Human Tumor Cells in Mice with Species-specific Polymerase Chain Reaction: Elevated Expression of Angiogenesis and Bone Resorption Stimulators by Breast Cancer in Bone Metastasis," <i>J. Bone Mineral Res.</i> , 16(6):1077-1091 (2001).	
C71	Verhoeyen et al., "Reshaping Human Antibodies: Grafting an Antilysozyme Activity," <i>Science</i> , 239:1534-1536 (1988).	
C72	Väänänen et al., "High Active Isoenzyme of Carbonic Anhydrase in Rat Calvaria Osteoclasts," Histochemistry, 78:481-485 (1983).	
C73	Wakabayashi et al., "Prevention of Metastasis by a Polyamine Synthesis Inhibitor in an Animal Bone Metastasis Model," <i>Oncology</i> , 59:75-80 (2000).	
C74	Walker, "Bone Resorption Restored in Osteopetrotic Mice by Transplants of Normal Bone Marrow and Spleen Cells," <i>Science</i> , 190:784-785 (1975).	
C75	Walker, "Osteopetrosis Cured by Temporary Parabiosis," Science, 180: 875 (1973).	
C76	Walker, "Spleen Cells Transmit Osteopetrosis in Mice," Science, 190:785-787 (1975).	
C77	Warshafsky et al., "Cytoskeleton Rearrangements During Calcitonin-induced Changes in Osteoclast Motility in Vitro," Bone, 6:179-185 (1985).	
C78	Weir et al., "Colony Stimulating Factor-1 Plays a Role in Osteoclast Formation and Function in Bone Resorption Induced by Parathyroid Hormone and Parathyroid Hormone-related Protein," <i>J. Bone Min. Res.</i> , 11(10):1474-1481 (1996).	
C79	Weir et al., "Macrophage Colony-stimulating Factor Release and Receptor Expression in Bone Cells," <i>J. Bone Min. Res.</i> , 8(12):1507-1518 (1993).	
C80	Wenger et al., "Effects of Taurolidine and Octreotide on Port Side and Liver Metastasis After Laparoscopy in an Animal Model of Pancreatic Cancer," Clin. Exp. Metastasis, 19:169-173 (2002).	
C81	Wiktor-Jedrzejczak et al., "Total Absence of Colony-stimulating Factor 1 in the Macrophage-deficient Osteopetronic (op/op) Mouse," Proc. Natl. Acad. Sci .USA, 87:4828-4832 (1990).	
C82	Wing et al., "Effect of Colony Stimulating Factor on Murine Macrophage," <i>J. Clin. Invest.</i> , 69(2):270-276 (1982).	
C83	Wong et al., "TRANCE (Tumor Necrosis Factor [TNF]-related Activation-induced Cytokine", a New TNF Family Member Predominantly Expressed in T Cells, is a Dendritic Cell-specific Survival Factor," <i>J. Exp. Med.</i> , 186:2075-2080 (1997).	
C84	Wong et al., "TRANCE is a Novel Ligand of the Tumor Necrosis Factor Receptor Family that	

Examiner	Date	
Signature	Considered	<u> </u>

PTO/SB/08A/B (09-06)

Approved for use through 03/31/2007. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449/PTO Application Number 10/585,459 **INFORMATION DISCLOSURE** July 7, 2006 Filing Date STATEMENT BY APPLICANT First Named Inventor Liu et al. Art Unit (Use as many sheets as necessary) Examiner Name 27527/40666 Sheet 6 of Attorney Docket Number

MAR 2 3 2007

		Activates c-Jun N-terminal Kinase in T Cells," J. Biol. Chem., 272:25190-25194 (1997).	
C85		Yasuda et al., "Identity of Osteoclastogenesis Inhibitory Factor (OCIF) and Osteoprotegerin (OPG): A Mechanism by Which OPG/OCIF Inhibits Osteoclastogenesis in Vitro," Endocrinology, 139:1329-1337 (1998).	
	C86	Yasuda et al., "Osteoclast Differentiation Factor is a Ligand for Osteoprotegerin/Osteoclastogenesis-inhibitory Factor and is Identical to TRANCE/RANKL," <i>Proc. Natl. Acad. Sci. USA</i> , 95:3597-3602 (1998).	
	C87	Yi et al., "Tumor-derived Platelet-derived Growth Factor-BB Plays a Critical Role in Osteosclerotic Bone Metastasis in an Animal Model of Human Breast Cancer," <i>Cancer Res.</i> , 62:917-923 (2002).	
	C88	Yin et al., "TFG-β Signaling Blockade Inhibits PTHrP Secretion by Breast Cancer Cells and Bone Metastases Development," <i>J. Clin. Invest.</i> , 103:197-206 (1999).	
	C89 Yoneda et al., "Inhibition of Osteolyic Bone Metastasis of Breast Cancer by Combined Treatment with the Bisphosphonate Ibandronate and Tissue Inhibitor of the Matrix Metalloproteinase-2," <i>J. Clin. Invest.</i> , 99:2509-2517 (1997).		
	C90	Yoshida et al., "The Murine Mutation Osteopetrosis is in the Coding Region of the Macrophage Colony Stimulating Factor Gene," <i>Nature</i> , 345:442-444 (1990).	
	C91	Zheng et al., "A Quantitative Cytochemical Investigation of Osteoclasts and Multinucleate Giant Cells," <i>Histochem. J.</i> , 23:180-188 (1991).	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner	Date	
Signature	Considered	

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Application No. (if known): 10/585,459

Attorney Docket No.: 27527/40666

Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

> MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

on	March 20, 2007	_ •
	Date	
	_ /nu	MS _m
•		Signature
		Eric M. Brusca
	Typed or printe	d name of person signing Certificate
	52,664	(312) 474-9580
Registration Number, if applicable		Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

IDS (Citation) by Applicant (123 References) (6 pages)